In the claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A data management system, comprising:

a nonvolatile semiconductor storage section including a plurality of blocks capable of storing data, the data being erasable[[by]] in units of a block;

a storage control section for controlling a storage operation of the nonvolatile semiconductor storage section;

a data management system control section for processing data to be stored in the nonvolatile semiconductor storage section; and

a data management system memory section for storing management data which is referred to by the data management system control section,

wherein the data management system control section performs data management by: dividing [[the]] data into data segments [[by]] in units of a sector which is a logical unit for data management; storing [[data]] link information which indicates the ordinal relationship of the data segments, together with the data segments, in the nonvolatile semiconductor storage section via the storage control section; and storing, as link information in each sector, information about an immediately-previous data storage site and an immediately-subsequent data storage ~~sites~~ site.

Claim 2 (currently amended): A data management system according to claim 1, wherein the [[data]] link information has number information for logical management which is allocated by the data management system control section ~~to the block~~.

Claim 3 (original): A data management system according to claim 2, wherein the number information includes at least a logical block number and a logical sector number.

Claim 4 (currently amended): A data management system according to claim 1, wherein the [[data]] link information has number information for physical management which is allocated by the data management system control section ~~to the block~~.

Claim 5 (original): A data management system according to claim 4, wherein the number information includes at least a physical block number and a physical sector number.

Claim 6 (currently amended): A data management system according to claim 1, wherein: the [[data]] link information includes:

data where all [[the]] bits are in a bit state that indicates that a block is erased, as information about the immediately-previous data storage site for a leading data segment of the ~~distributed~~ data segments; and

data where all [[the]] bits are in a bit state that indicates that a block is erased, as information about the immediately-subsequent data storage site for a last data segment of the ~~distributed~~ data segments.

Claim 7 (currently amended): A data management system according to claim 6, wherein the [[data]] link information further includes an error-correcting code for error-correcting [[the]] information about the immediately-previous data storage site and [[the]] information about the immediately-subsequent data storage site.

Claim 8 (original): A data management system according to claim 7, wherein the error-correcting code is a Hamming code.

Claim 9 (currently amended): A data management system according to claim 6, wherein the data management system control section includes:

a section for searching a leading sector of data corresponding to an [[ID]] identification (ID) number supplied by ~~the application program or operating system~~ software and comparing information about an immediately-previous data storage site of [[data]] link information stored in the leading sector with data where all [[the]] bits indicate a state where a block is erased; and

a section for informing, when the comparison result is negative, the software ~~such as an application program or an operating system~~ that there is an error in the [[data]] link information.

Claim 10 (currently amended): A data management system according to claim 9, wherein the data management system control section includes:

a section for searching a leading sector of data corresponding to an [[ID]] identification (ID) number supplied by the software, ~~such as the application program or operating system,~~ and when the last sector is referred to ~~while sequentially following, from the leading sector, information about immediately subsequent data storage site included in data link information stored in each sector~~, comparing information about an immediately-subsequent data storage site of [[data]] link information stored in the last sector with data where all [[the]] bits indicate a state where a block is erased; and

a section for informing, when the comparison result is negative, the software ~~such as an application program or an operating system~~ that there is an error in the [[data]] link information.

Claim 11 (currently amended): A data management system according to claim 9, wherein the data management system control section includes a section for correcting information about a data storage site ~~to correct information~~ by using an error-correcting code when any discrepancy exists between the information about data storage sites.

Claim 12 (currently amended): A data management system according to claim 6, wherein the data management system control section includes:

a section for searching a leading sector of data corresponding to an [[ID]] identification (ID) number supplied by software, ~~such as the application program or operating system,~~ and when the last sector is referred to w~~hile sequentially following, from the leading sector, information about immediately subsequent data storage site included in data link information stored in each sector~~, comparing information about an immediately-subsequent data storage site of [[data]] link information stored in the last sector with data where all the bits indicate a state where a block is erased; and

a section for informing, when the comparison result is negative, the software ~~such as an application program or an operating system~~ that there is an error in the [[data]] link information.

Claim 13 (currently amended): A data management system according to claim 1, wherein the [[data]] link information further includes an error-correcting code for error-correcting the information about the immediately-previous data storage site and the information about the immediately-subsequent data storage site.

Claim 14 (original): A data management system according to claim 13, wherein the error-correcting code is a Hamming code.

Claim 15 (currently amended): A data management system according to claim 1, wherein the data management system control section manages correspondence between an [[ID]] identification (ID) number supplied by software, ~~such as an application program or operating system~~, and a leading data segment of the ~~distributed~~ data segments such that data stored in the nonvolatile semiconductor storage section can be identified by the ID number.

Claim 16 (currently amended): A data management system according to claim 1, wherein the [[data]] link information includes a plurality of [[data]] link information having the same content.

Claim 17 (currently amended): A data management system according to claim 16, wherein the data management system control section includes a section for confirming for each ~~distributed~~ data segment, by using each pair of [[data]] link information, when at least the [[data]] link information is referred to, whether or not any discrepancy exists between information about an immediately-subsequent data storage site which is stored in each sector and information about an immediately-previous data storage site which is stored in a next sector ~~appointed~~ indicated by the information about the immediately-subsequent data storage site.

Claim 18 (currently amended): A data management system according to claim 17, wherein the data management system control section includes a section for correcting a plurality of [[data]]

link information having the same content when the content involves any discrepancy, such that data involving the discrepancy is corrected by using data involving no discrepancy.

Claim 19 (currently amended): A data management system according to claim 16, wherein the data management system control section includes a section for: confirming, when one of the plurality of link information having the same content is referred to, by using a pair of [[data]] link information, whether or not any discrepancy exists between information about an immediately-subsequent data storage site which is stored in each ~~of distributed sectors~~ sector and information about an immediately-previous data storage site which is stored in a next sector ~~appointed~~ indicated by the information about the immediately-subsequent data storage site; and performing [[the]] another confirmation by using another pair of [[data]] link information if any discrepancy exists.

Claim 20 (currently amended): A data management system according to claim 1, wherein the data management system control section includes a section for confirming for ~~at least~~ each ~~distributed~~ data segment, when the [[data]] link information is referred to, whether or not any discrepancy exists between information about an immediately-subsequent data storage site which is stored in each sector and information about an immediately-previous data storage site which is stored in a next sector ~~appointed~~ indicated by the information about the immediately-subsequent data storage site.

Claim 21 (currently amended): A data management system according to claim 20, wherein the data management system control section includes a section for: referring, for the purpose of confirming whether or not any discrepancy exists between information concerning data storage sites, to data ~~appointed~~ indicated by information about an immediately-subsequent data storage site which is included in [[data]] link information of one of ~~distributed~~ the data ~~segment~~ segments; and comparing information about an immediately-previous data storage site of [[data]] link information stored in an immediately-subsequent sector with information about an immediately-previous data storage site.

Claim 22 (currently amended): A data management system according to claim 1, wherein the data management system control section includes a section for informing software~~, such as an application program, operating system, etc.,~~ when a plurality of [[data]] link information having the same content have any discrepancy in the content.

Claim 23 (currently amended): A data management method, comprising a step of storing in a nonvolatile semiconductor storage section, together with each of a plurality of data segments that are distributed to sectors, a sector being ~~each of which is~~ a logical data management unit, [[data]] link information indicating an ordinal relationship of the data segments based on [[which]] the distribution of the data segments ~~are distributed~~ to the sectors and having information about an immediately-previous data storage site and an immediately-subsequent data storage [[sites]] site for each of the data segments distributed to the sectors.

Claim 24 (currently amended): A data management method according to claim 23, further comprising steps of:

searching a leading sector of data corresponding to an [[ID]] identification (ID) number supplied by the ~~application program or operating system~~ software and comparing information about an immediately-previous data storage site of [[data]] link information stored in the leading sector with data where all [[the]] bits indicate the state that a block is erased; and

informing, when the comparison result is negative, software ~~such as an application program or an operating system~~ that there is an error in the [[data]] link information.

Claim 25 (currently amended): A data management method according to claim 24, further comprising steps of:

searching a leading sector of data corresponding to an [[ID]] identification (ID) number supplied by the software, ~~such as the application program or operating system,~~ and when the last sector is referred to ~~while sequentially following, from the leading sector, information about immediately subsequent data storage site included in data link information stored in each sector~~, comparing information about an immediately-subsequent data storage site of [[data]] link

information stored in the last sector with data where all [[the]] bits indicate the state that a block is erased; and

informing, when the comparison result is negative, the software ~~such as an application program or an operating system~~ that there is an error in the [[data]] link information.

Claim 26 (currently amended): A data management method according to claim 24, further comprising a step of correcting information about a data storage site ~~to correct information~~ by using an error-correcting code when any discrepancy exists between [[the]] information about data storage sites.

Claim 27 (currently amended): A data management method according to claim 24, further comprising a step of informing software~~, such as application program, operating system, etc.,~~ when a plurality of [[data]] link information having the same content have any discrepancy in the content.

Claim 28 (currently amended): A data management method according to claim 23, further comprising steps of:

searching a leading sector of data corresponding to an [[ID]] identification (ID) number supplied by software, ~~such as the application program or operating system,~~ and when the last sector is referred to ~~while sequentially following, from the leading sector, information about immediately subsequent data storage site included in data link information stored in each sector~~, comparing information about an immediately-subsequent data storage site of [[data]] link information stored in the last sector with data where all the bits indicate the state that a block is erased; and

informing, when the comparison result is negative, software~~, such as an application program or an operating system~~ that there is an error in the [[data]] link information.

Claim 29 (currently amended): A data management method according to claim 23, further comprising a step of confirming for ~~at least~~ each distributed data segment, when the [[data]] link information is referred to, whether or not any discrepancy exists between information about an immediately-subsequent data storage site which is stored in each sector and information about an

immediately-previous data storage site which is stored in a next sector ~~appointed~~ indicated by the information about the immediately-subsequent data storage site.

Claim 30 (currently amended): A data management method according to claim 29, further comprising steps of:

referring, for the purpose of confirming whether or not any discrepancy exists between information concerning data storage sites, data ~~appointed~~ indicated by information about an immediately-subsequent data storage site which is included in [[data]] link information of one of the distributed data ~~segment~~ segments; and

comparing information about an immediately-previous data storage site of [[data]] link information stored in an immediately-subsequent sector with information about an immediately-previous data storage site.

Claim 31 (currently amended): A data management method according to claim 23, further comprising a step of confirming for each distributed data segment, by using each pair of [[data]] link information, when at least the [[data]] link information is referred to, whether or not any discrepancy exists between information about an immediately-subsequent data storage site which is stored in each sector and information about an immediately-previous data storage site which is stored in a next sector ~~appointed~~ indicated by the information about the immediately-subsequent data storage site.

Claim 32 (currently amended): A data management method according to claim 31, further comprising a step of correcting a plurality of [[data]] link information having the same content when the content involves any discrepancy, such that data involving the discrepancy is corrected by using data involving no discrepancy.

Claim 33 (currently amended): A data management method according to claim 23, further comprising steps of:

confirming, when one of the plurality of link information having the same content is referred to, by using a pair of [[data]] link information, whether or not any discrepancy exists between information about an immediately-subsequent data storage site which is stored in each of distributed sectors and information about an immediately-previous data storage site which is stored in a next sector ~~appointed~~ indicated by the information about the immediately-subsequent data storage site; and

performing [[the]] another confirmation by using another pair of [[data]] link information if any discrepancy exists.

Claim 34 (currently amended): A data management method according to claim 23, further comprising a step of informing software~~, such as application program, operating system, etc.,~~ when a plurality of [[data]] link information having the same content have any discrepancy in the content.